

Coaxial Bias-Tee

50Ω Wideband 0.2 to 12000 MHz

ZX85-12G+



CASE STYLE: GC957

Connectors	Model
SMA	ZX85-12G-S+

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	30dBm
Voltage at DC port	25V
DC Current	400mA
DC resistance from DC to RF&DC port	1.8Ω

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

RF	OUT
RF&DC	IN
DC	V+

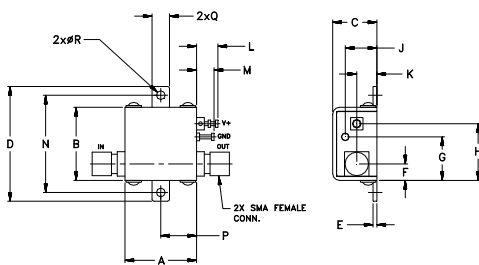
Features

- wideband, 0.2 to 12000 MHz
- low insertion loss, 0.6 dB typ.
- high current capability, 400 mA
- small size 0.74" x 0.75" x 0.46"
- rugged unibody construction
- protected by US patent 6,790,049

Applications

- biasing amplifiers
- biasing of laser diodes
- biasing of active antennas
- DC return
- DC blocking
- test accessory

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.74	.75	.46	1.18	.04	.17	.45	.59	.33
18.80	19.05	11.68	29.97	1.02	4.32	11.43	14.99	8.38
K	L	M	N	P	Q	R	wt	
.21	.22	.18	1.00	.37	.18	.106	grams	
5.33	5.59	4.57	25.40	9.40	4.57	2.69		23

Bias-Tee Electrical Specifications

FREQ. (MHz)		INSERTION LOSS* (dB)						VSWR* (:1)					
f_L	f_U	L		M		U		L		M		U	
		Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
0.2	12000	0.1	0.5	0.6	1.5	1.0	2.5	1.1	1.5	1.2	1.5	1.2	1.5

L= low range(f_L to $10 f_L$)

M=mid range($10 f_L$ to $f_U/2$)

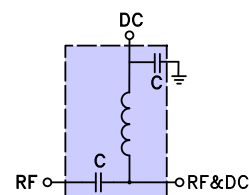
U=upper range ($f_U/2$ to f_U)

*Insertion Loss and VSWR are guaranteed up to 20 dBm RF power and 200mA DC current.

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB) with current		VSWR (:1) with current	
	0mA	200mA	0mA	200mA
0.20	0.09	0.25	1.17	1.18
700.00	0.52	0.93	1.10	1.05
1600.00	1.21	0.65	1.24	1.25
2400.00	0.84	1.14	1.14	1.15
3200.00	0.67	0.76	1.05	1.06
4000.00	0.76	0.77	1.07	1.06
4800.00	0.71	0.81	1.11	1.10
5600.00	0.66	0.76	1.10	1.11
6200.00	0.65	0.73	1.08	1.11
7000.00	0.69	0.75	1.07	1.09
7800.00	0.88	0.80	1.11	1.09
8600.00	1.11	1.11	1.11	1.08
9200.00	1.11	1.15	1.07	1.07
10000.00	1.21	1.20	1.02	1.07
12000.00	1.37	1.39	1.15	1.11

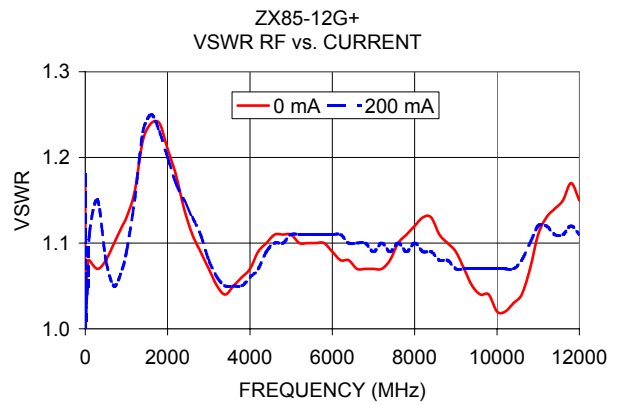
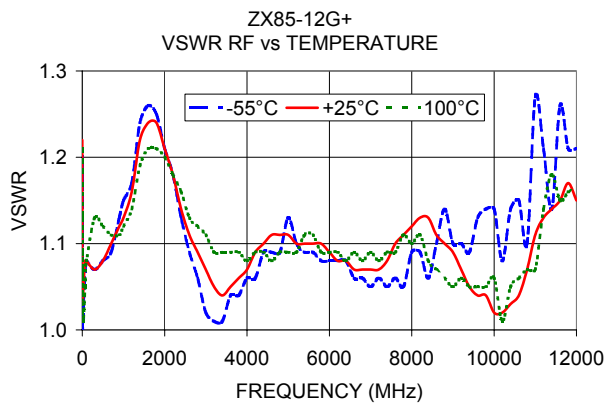
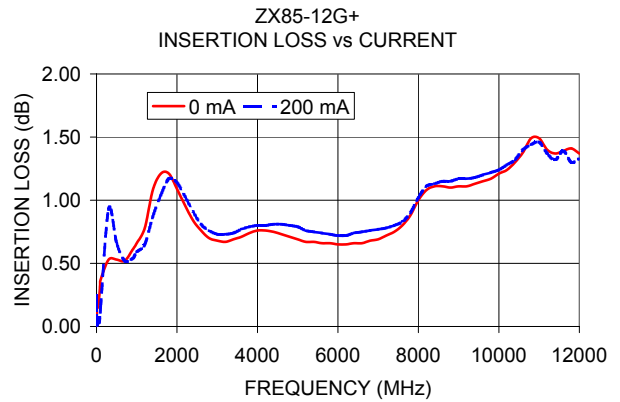
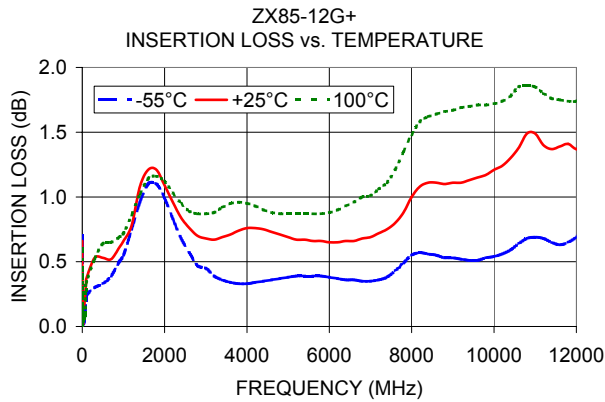
Electrical Schematic



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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